
Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2008; month=11; day=25; hr=8; min=29; sec=34; ms=74;]

Validated By CRFValidator v 1.0.3

Application No: 10511384 Version No: 4.0

Input Set:

Output Set:

Started: 2008-10-31 15:17:06.780 **Finished:** 2008-10-31 15:17:08.975

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 195 ms

Total Warnings: 218
Total Errors: 0

No. of SeqIDs Defined: 226

Actual SeqID Count: 226

Error code		Error Description	on								
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(1)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(2)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(3)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(4)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(5)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(6)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(7)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(8)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(9)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(10)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(11)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(12)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(13)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(14)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(15)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(16)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(17)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(18)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(27)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(28)

Input Set:

Output Set:

Started: 2008-10-31 15:17:06.780 **Finished:** 2008-10-31 15:17:08.975

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 195 ms

Total Warnings: 218

Total Errors: 0

No. of SeqIDs Defined: 226

Actual SeqID Count: 226

Error code Error Description

This error has occured more than 20 times, will not be displayed

SEQUENCE LISTING

<110>	Center for Genetic Engineering and Biotechnology	
<120>	Antiangiogenic active immunotherapies	
<130>	976-19 PCT/US/RCE	
<140> <141>	10511384 2008-10-31	
	CU 2002/0076 2002-04-15	
<160>	226	
<170>	PatentIn version 3.4	
<210> <211>	1 21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	1	
tagatco	catg aactttctgc t	21
eggaeee	sacy addecedage c	
.010		
<210>	2	
<211>	22	
<212>		
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	2	
gaattca	accg cctcggcttg tc	22
<210>	3	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
	-	
<220>		
<223>	primer	
	F	
<400>	3	
		21
Lygalco	catg aactttctgc t	∠⊥
<0105		
<210>	4	

<211> 30

```
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 4
                                                                     30
ctggccttgt gcaggtgcga ttgccataat
<210> 5
<211> 30
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 5
attatggcaa tcgcacctgc acaaggccag
                                                                     30
<210> 6
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 6
                                                                    22
gaattcaccg cctcggcttg tc
<210> 7
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 7
tggatccatg aactttctgc t
                                                                    21
<210> 8
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 8
gaattcaccg cctcggcttg tc
                                                                    22
```

```
<210> 9
<211> 25
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 9
                                                                    25
tggatccatg gagagcaagg tgctg
<210> 10
<211> 25
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 10
                                                                    25
gaattcacat cagcccactg gatgc
<210> 11
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 11
cctctagatg tgcaaaagtg g
                                                                    21
<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
<400> 12
                                                                    20
tgagatcttc gggagcttcc
<210> 13
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> primer
```

<400>	13	
gaagato	etgt ataaggactt c	21
<210>	14	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	14	
tagcggd	ccgc ttaaacagg	19
<210>	15	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	15	
aggcct	ctac acctgccagg ca	22
<210>	16	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	16	
cctaggt	taa acaggaggag	20
<210>	17	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	17	
cccggga	atat ttataaagat c	21
<210>	18	
<211>	19	
<212>	DNA	

<213> Artificial Sequence

```
<220>
<223> primer

<400> 18
tagcggccgc ttaaacagg

<210> 19
<211> 147
```

19

<400> 147

<212> PRT

<213> Homo Sapiens

Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu Ala Leu Leu 1 5 10 15

Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro Met Ala Glu Gly
20 25 30

Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln
35 40 45

Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu 50 55 60

Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu 65 70 75 80

Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro 85 90 95

Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Glu Ile Glu Pro Glu
100 105 110

Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys 115 120 125

Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Lys Cys Asp Lys 130 135 140

Pro Arg Arg 145

<210> 20 <211> 444 <212> DNA

<213> Homo Sapiens

<400> 20

atgaactttc tgctgtcttg ggtgcattgg agccttgcct tgctgctcta cctccaccat 60
gccaagtggt cccaggctgc acccatggca gaaggaggag ggcagaatca tcacgaagtg 120
gtgaagttca tggatgtcta tcagcgcagc tactgccatc caatcgagac cctggtggac 180

atcttccagg agtaccctga tgagatcgag tacatcttca agccatcctg tgtgcccctg 240 atgcgatgcg ggggctgctg caatgacgag ggcctggagt gtgtgcccac tgaggagtcc 300 aacatcacca tgcagattat gcggatcaaa cctcaccaag gccagcacat aggagagatg 360 420 agcttcctac agcacaacaa atgtgaatgc agaccaaaga aagatagagc aagacaagaa aaatgtgaca agccgaggcg gtga 444

<210> 21

<211> 147

<212> PRT

<213> Homo Sapiens

<400> 147

Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu Ala Leu Leu Leu 10

Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro Met Ala Glu Gly 25 20

Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln 40

Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu 55

Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu 70 75

Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro 85

Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Ala Ile Ala Pro Ala 100 105 110

Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys 115 120

Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Lys Cys Asp Lys 135 140

Pro Arg Arg

145

<210> 22

<211> 444

<212> DNA

<213> Homo Sapiens

<400> 22

gccaagtggt	cccaggctgc	acccatggca	gaaggaggag	ggcagaatca	tcacgaagtg	120
gtgaagttca	tggatgtcta	tcagcgcagc	tactgccatc	caatcgagac	cctggtggac	180
atcttccagg	agtaccctga	tgagatcgag	tacatcttca	agccatcctg	tgtgcccctg	240
atgcgatgcg	ggggctgctg	caatgacgag	ggcctggagt	gtgtgcccac	tgaggagtcc	300
aacatcacca	tgcagattat	ggcaatcgca	cctgcacaag	gccagcacat	aggagagatg	360
agcttcctac	agcacaacaa	atgtgaatgc	agaccaaaga	aagatagagc	aagacaagaa	420
aaatgtgaca	agccgaggcg	gtaa				444
<210> 23						

<211> 314

<212> PRT

<213> Homo Sapiens

<400> 314

Met Glu Ser Lys Val Leu Leu Ala Val Ala Leu Trp Leu Cys Val Glu

Thr Arg Ala Ala Ser Val Gly Leu Pro Ser Val Ser Leu Asp Leu Pro 20 25

Arg Leu Ser Ile Gln Lys Asp Ile Leu Thr Ile Lys Ala Asn Thr Thr 40

Leu Gln Ile Thr Cys Arg Gly Gln Arg Asp Leu Asp Trp Leu Trp Pro

Asn Asn Gln Ser Gly Ser Glu Gln Arg Val Glu Val Thr Glu Cys Ser 70 75

Asp Gly Leu Phe Cys Lys Thr Leu Thr Ile Pro Lys Val Ile Gly Asn 85 90 95

Asp Thr Gly Ala Tyr Lys Cys Phe Tyr Arg Glu Thr Asp Leu Ala Ser 100 105 110

Val Ile Tyr Val Tyr Val Gln Asp Tyr Arg Ser Pro Phe Ile Ala Ser 115 120

Val Ser Asp Gln His Gly Val Val Tyr Ile Thr Glu Asn Lys Asn Lys 135 140

Thr Val Val Ile Pro Cys Leu Gly Ser Ile Ser Asn Leu Asn Val Ser 150 155

Leu Cys Ala Arg Tyr Pro Glu Lys Arg Phe Val Pro Asp Gly Asn Arg 165 170 175

Ile	Ser	Trp	Asp 180	Ser	Lys	Lys	Gly	Phe 185	Thr	Ile	Pro	Ser	Tyr 190	Met	Ile
Ser	Tyr	Ala 195	Gly	Met	Val	Phe	Cys 200	Glu	Ala	Lys	Ile	Asn 205	Asp	Glu	Ser
Tyr	Gln 210	Ser	Ile	Met	Tyr	Ile 215	Val	Val	Val	Val	Gly 220	Tyr	Arg	Ile	Tyr
Asp 225	Val	Val	Leu	Ser	Pro 230	Ser	His	Gly	Ile	Glu 235	Leu	Ser	Val	Gly	Glu 240
Lys	Leu	Val	Leu	Asn 245	Cys	Thr	Ala	Arg	Thr 250	Glu	Leu	Asn	Val	Gly 255	Ile
Asp	Phe	Asn	Trp 260	Glu	Tyr	Pro	Ser	Ser 265	Lys	His	Gln	His	Lys 270	Lys	Leu
Val	Asn	Arg 275	Asp	Leu	Lys	Thr	Gln 280	Ser	Gly	Ser	Glu	Met 285	Lys	Lys	Phe
Leu	Ser 290	Thr	Leu	Thr	Ile	Asp 295	Gly	Val	Thr	Arg	Ser 300	Asp	Gln	Gly	Leu
Tyr	Thr	Cys	Ala	Ala	Ser	Ser	Gly	Leu	Met						

Tyr Thr Cys Ala Ala Ser Ser Gly Leu Met 305

<210> 24 <211> 943 <212> DNA <213> Homo Sapiens

<400> 24

atggagagca	aggtgctgct	ggccgtcgcc	ctgtggctct	gcgtggagac	ccgggccgcc	60
tctgtgggtt	tgcctagtgt	ttctcttgat	ctgcccaggc	tcagcataca	aaaagacata	120
cttacaatta	aggctaatac	aactcttcaa	attacttgca	ggggacagag	ggacttggac	180
tggctttggc	ccaataatca	gagtggcagt	gagcaaaggg	tggaggtgac	tgagtgcagc	240
gatggcctct	tctgtaagac	actcacaatt	ccaaaagtga	tcggaaatga	cactggagcc	300
tacaagtgct	tctaccggga	aactgacttg	gcctcggtca	tttatgtcta	tgttcaagat	360
tacagatctc	catttattgc	ttctgttagt	gaccaacatg	gagtcgtgta	cattactgag	420
aacaaaaaca	aaactgtggt	gattccatgt	ctcgggtcca	tttcaaatct	caacgtgtca	480
ctttgtgcaa	gatacccaga	aaagagattt	gttcctgatg	gtaacagaat	ttcctgggac	540
agcaagaagg	gctttactat	tcccagctac	atgatcagct	atgctggcat	ggtcttctgt	600
gaagcaaaaa	ttaatgatga	aagttaccag	tctattatgt	acatagttgt	cgttgtaggg	660

	tatagg	attt	atgai	tgtg	gt to	ctga	gtcc	g tci	cato	ggaa	ttg	aact	atc 1	tgtt	ggagaa		720
	aagctt	gtct	taaai	ttgt	ac aq	gcaaq	gaact	t ga	acta	aatg	tgg	ggati	tga (cttca	aactgg		780
	gaatac	cctt	cttc	gaag	ca to	cagca	ataaq	g aaa	actto	gtaa	acc	gaga	cct (aaaa	acccag	8	840
	tctggg	agtg	agat	gaag	aa at	tttt	tgag	c ac	ctta	acta	taga	atggi	tgt (aacco	cggagt	!	900
•	gaccaa	ggat	tgta	cacci	tg to	gcag	catco	c agt	-ggg	ctga	tga					!	943
	<210> <211> <212> <213>	25 611 PRT Homo	sap:	iens													
	<400>	611	Gl	71-	Dh -	Dh.	T1-	T1-	C1	C1	71-	Cl.	G1	T	Th		
	Ala Ly 1	s val	GIU	5 5	Pne	Pne	TTe	TTe	10	GIĀ	Ala	GIII	GIU	15	inr		
	Asn Le	u Glu	Ile 20	Ile	Ile	Leu	Val	Gly 25	Thr	Ala	Val	Ile	Ala 30	Met	Phe		
:	Phe Tr	p Leu 35	Leu	Leu	Val	Ile	Ile 40	Leu	Arg	Thr	Val	Lys 45	Arg	Ala	Asn		
•	Gly Gl 50	_	Leu	Lys	Thr	Gly 55	Tyr	Leu	Ser	Ile	Val 60	Met	Asp	Pro	Asp		
	Glu Le 65	u Pro	Leu	Asp	Glu 70	His	Cys	Glu	Arg	Leu 75	Pro	Tyr	Asp	Ala	Ser 80		
:	Lys Tr	p Glu	Phe	Pro 85	Arg	Asp	Arg	Leu	Lys 90	Leu	Gly	Lys	Pro	Leu 95	Gly		
	Arg Gl	y Ala	Phe 100	Gly	Gln	Val	Ile	Glu 105	Ala	Asp	Ala	Phe	Gly 110	Ile	Asp		
:	Lys Th	r Ala 115	Thr	Суз	Arg	Thr	Val 120	Ala	Val	Lys	Met	Leu 125	Lys	Glu	Gly		
	Ala Th 13		Ser	Glu	His	Arg 135	Ala	Leu	Met	Ser	Glu 140	Leu	Lys	Ile	Leu		
	Ile Hi 145	s Ile	Gly	His	His	Leu	Asn	Val	Val	Asn	Leu	Leu	Gly	Ala	Cys		

145 150 155 160

Thr	Lys	Pro	Gly	Gly 165	Pro	Leu	Met	Val	Ile 170	Val	Glu	Phe	Суз	Lys 175	Phe
Gly	Asn	Leu	Ser 180	Thr	Tyr	Leu	Arg	Ser 185	Lys	Arg	Asn	Glu	Phe 190	Val	Pro
Tyr	Lys	Thr 195	Lys	Gly	Ala	Arg	Phe 200	Arg	Gln	Gly	Lys	Asp 205	Tyr	Val	Gly
Ala	Ile 210	Pro	Val	Asp	Leu	Lys 215	Arg	Arg	Leu	Asp	Ser 220	Ile	Thr	Ser	Ser
Gln 225	Ser	Ser	Ala	Ser	Ser 230	Gly	Phe	Val	Glu	Glu 235	Lys	Ser	Leu	Ser	Asp 240
Val	Glu	Glu	Glu	Glu 245	Ala	Pro	Glu	Asp	Leu 250	Tyr	Lys	Asp	Phe	Leu 255	Thr
Leu	Glu	His	Leu 260	Ile	Суз	Tyr	Ser	Phe 265	Gln	Val	Ala	Lys	Gly 270	Met	Glu
Phe	Leu	Ala 275	Ser	Arg	Lys	Суз	Ile 280	His	Arg	Asp	Leu	Ala 285	Ala	Arg	Asn
Ile	Leu 290	Leu	Ser	Glu	Lys	Asn 295	Val	Val	Lys	Ile	Cys 300	Asp	Phe	Gly	Leu
305			Ile		310				_	315					320
-			Leu	325	-				330				-	335	
Tyr	Thr	Ile	Gln 340	Ser	Asp	Val	Trp	Ser 345	Phe	Gly	Val	Leu	150	Trp	Glu
Ile	Phe	Ser 355	Leu	Gly	Ala	Ser	Pro 360	Tyr	Pro	Gly	Val	Lys 365	Ile	Asp	Glu
Glu	Phe 370	Суз	Arg	Arg	Leu	Lys 375	Glu	Gly	Thr	Arg	Met 380	Arg	Ala	Pro	Asp

Tyr 385	Thr	Thr	Pro	Glu	Met 390	Tyr	Gln	Thr	Met	Leu 395	Asp	Cys	Trp	His	Gly 400
Glu :	Pro	Ser	Gln	Arg 405	Pro	Thr	Phe	Ser	Glu 410	Leu	Val	Glu	His	Leu 415	Gly
Asn :	Leu	Leu	Gln 420	Ala	Asn	Ala	Gln	Gln 425	Asp	Gly	Lys	Asp	Tyr 430	Ile	Val
Leu	Pro	Ile 435	Ser	Glu	Thr	Leu	Ser 440	Met	Glu	Glu	Asp	Ser 445	Gly	Leu	Ser
Leu :	Pro 450	Thr	Ser	Pro	Val	Ser 455	Суз	Met	Glu	Glu	Glu 460	Glu	Val	Суз	Asp
Pro :	Lys	Phe	His	Tyr	Asp 470	Asn	Thr	Ala	Gly	Ile 475	Ser	Gln	Tyr	Leu	Gln 480
Asn	Ser	Lys	Arg	Lys 485	Ser	Arg	Pro	Val	Ser 490	Val	Lys	Thr	Phe	Glu 495	Asp
Ile	Pro	Leu	Glu 500	Glu	Pro	Glu	Val	Lys 505	Val	Ile	Pro	Asp	Asp 510	Asn	Gln
Thr .	Asp	Ser 515	Gly	Met	Val	Leu	Ala 520	Ser	Glu	Glu	Leu	Lys 525	Thr	Leu	Glu
Asp .	Arg 530	Thr	Lys	Leu	Ser	Pro 535	Ser	Phe	Gly	Gly	Met 540	Val	Pro	Ser	Lys
Ser . 545	Arg	Glu	Ser	Val	Ala 550	Ser	Glu	Gly	Ser	Asn 555	Gln	Thr	Ser	Gly	Tyr 560
Gln	Ser	Gly	Tyr	His 565	Ser	Asp	Asp	Thr	Asp 570	Thr	Thr	Val	Tyr	Ser 575	Ser
Glu	Glu	Ala	Glu 580	Leu	Leu	Lys	Leu	Ile 585	Glu	Ile	Gly	Val	Gln 590	Thr	Gly
Ser '	Thr	Ala 595	Gln	Ile	Leu	Gln	Pro 600	Asp	Ser	Gly	Thr	Thr 605	Leu	Ser	Ser

<210>	26	
<211>	1836	
<212>	DNA	
<213>	Homo	Sapiens

<400> 1836

gcaaaagtgg aggcattttt	cataatagaa	ggtgcccagg	aaaagacgaa	cttggaaatc	60
attattctag taggcacggc	ggtgattgcc	atgttcttct	ggctacttct	tgtcatcatc	120
ctacggaccg ttaagcgggc	caatggaggg	gaactgaaga	caggetaett	gtccatcgtc	180
atggatccag atgaactccc	attggatgaa	cattgtgaac	gactgcctta	tgatgccagc	240
aaatgggaat tccccagaga	ccggctgaag	ctaggtaagc	ctcttggccg	tggtgccttt	300
ggccaagtga ttgaagcaga	tgcctttgga	attgacaaga	cagcaacttg	caggacagta	360
gcagtcaaaa tgttgaaaga	aggagcaaca	cacagtgagc	atcgagctct	catgtctgaa	420
ctcaagatcc tcattcatat	tggtcaccat	ctcaatgtgg	tcaaccttct	aggtgcctgt	480
accaagccag gagggccact	catggtgatt	gtggaattct	gcaaatttgg	aaacctgtcc	540
acttacctga ggagcaagag	aaatgaattt	gtcccctaca	agaccaaagg	ggcacgattc	600
cgtcaaggga aagact					